

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Final Office Action of February 25, 2003 has been received and contents carefully reviewed. Claims 1, 3, 4, 9, 15, 17, 18, and 21 are currently pending in this application, with claim 21 being amended.

In the Office Action, claims 1, 3, 4, 9, 15, 17, and 21 are rejected under 35 U.S.C. §103(a) in which one of the references is allegedly admitted prior art. At the outset, Applicants make no admittance of prior art. Figures 1, 2, and 3, which have been identified as “admitted prior art” by the Examiner, have been used by the Applicants to provide related art descriptions.

In the Office Action, the Examiner objects to claim 21 due to informalities; rejects claims 1, 4, and 21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,466,620 to Bang (hereinafter “Bang”) in view of the Related Art; rejects claims 3 and 9 under 35 U.S.C. §103(a) as being unpatentable over Bang and the Related Art as applied to claim 1 above, and further in view of U.S. Patent No. 5,656,824 to den Boer et al. (hereinafter “den Boer”); rejects claims 15 and 17 under 35 U.S.C. §103(a) as being unpatentable over Bang in view of the Related Art and den Boer; and rejects claim 18 under 35 U.S.C. §103(a) as being unpatentable over Bang in view of den Boer.

The Examiner objects to claim 21 over informalities. In response, the bracketed text within the claim is removed by this amendment. Applicants respectfully submit that this correction overcomes the Examiner’s objection.

In the Office Action, the Examiner rejects claims 1, 4, and 21 under 35 U.S.C. §103(a) as being unpatentable over Bang in view of the Related Art. The rejection of claims 1, 4, and 21 is

respectfully traversed and reconsideration is requested. Applicants respectfully assert that the Office Action fails to provide a motivation to combine the cited references to establish *prima facie* obviousness. MPEP 2142.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion of motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination must both be found in the prior art, and not based on the applicant's disclosure. MPEP 2142 and MPEP 2143.

Applicants respectfully assert that the Office Action fails to state a motivation to combine the references, and that the cited references are not pertinent to the present invention.

The Manual of Patent Examining Procedure ("MPEP"), citing In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) states:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP 2143.

Moreover, although a device may be capable of being modified, there must be some suggestion or motivation in the references. MPEP 2143. It must first be shown that there is some suggestion or motivation to combine the references cited, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the references teachings. MPEP 2143.

The Office Action suggests that the motivation to combine the teachings of Bang and the Related Art would have been to use the sensor TFT and the storage capacitor of the Related Art in the method of Bang in order to detect and optical image using well understood thin film transistors and capacitors as stated in the Related Art.

Applicants respectfully submit that this recitation of motivation fails to explain what specific scientific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination of the teachings of Bang and the Related Art.

The problem sought to be solved by Bang is to provide for the “repairing [of] a point defect such as an electrical short between a pixel and a thin film transistor, or between a bus line and a pixel, while fabricating the device.” See col. 1, lines 12-15.

The problem sought to be solved by the Related Art is to provide “an optical detecting sensor [which] detects an image of an object by producing a detecting current in response to light reflected from the object (page 2, lines 10-11),” wherein the sensor includes “a window which transmits light from the light source to the object, a sensor TFT which generates an optical current in accordance to the amount of the light reflected from the object, a storage capacitor which stores charges of the optical current generated in the sensor TFT, and a switching TFT which controls the release of charges of the storage capacitor to an external circuit.” See page 2, lines 12-16.

Therefore, because the problems addressed by Bang and the Related Art are different, Applicants assert that one of ordinary skill would not have reasonably consulted the cited references and applied their teachings in seeking a solution to the problem that the present invention attempts to solve. See, In re GPAC, 57 F.3d 1573, 1578, 35 USPQ2d 1116 (Fed. Cir. 1995)(citing In re Wood, 599 F. 2d 1032, 1036, 202 USPQ 171 (CCPA 1979)).

Applicants respectfully request reconsideration of the claims rejected over the combination of the teachings of Bang and the Related Art because there is no motivation to

combine these references, particularly because the problems to be solved by Bang and the Related Art are not analogous. Accordingly, Applicants respectfully submit that claims 1, 4, and 21, and claims 3 and 9, which depend from claim 1, are allowable over the cited references.

In the Office Action, the Examiner rejects claims 3 and 9 under 35 U.S.C. §103(a) as being unpatentable over Bang and the Related Art as applied to claim 1 above, and further in view of den Boer. The rejection of claims 3 and 9 is respectfully traversed and reconsideration is requested. The additional reference, den Boer, fails to cure the deficiency of the combination of the teachings of Bang and the Related Art.

The problem sought to be solved by den Boer is to provide a "TFT having a channel length capable of being less than the feature size of the lithography used so as to reduce gate-source capacitance which in turn reduces pixel flickering and image retention thereby improving the viewing characteristics of the LCD." Col. 1, lines 10-14.

The problem sought to be solved by Bang is to provide for the "repairing [of] a point defect such as an electrical short between a pixel and a thin film transistor, or between a bus line and a pixel, while fabricating the device." See col. 1, lines 12-15.

The problem sought to be solved by the Related Art is to provide "an optical detecting sensor [which] detects an image of an object by producing a detecting current in response to light reflected from the object (page 2, lines 10-11)," wherein the sensor includes "a window which transmits light from the light source to the object, a sensor TFT which generates an optical current in accordance to the amount of the light reflected from the object, a storage capacitor which stores charges of the optical current generated in the sensor TFT, and a switching TFT which controls the release of charges of the storage capacitor to an external circuit." See page 2,

lines 12-16.

Therefore, because the problems addressed by Bang, the Related Art, and den Boer are different, Applicants assert that one of ordinary skill would not have reasonably consulted the cited references and applied their teachings in seeking a solution to the problem that the present invention attempts to solve. See, In re GPAC, 57 F.3d 1573, 1578, 35 USPQ2d 1116 (Fed. Cir. 1995)(citing In re Wood, 599 F. 2d 1032, 1036, 202 USPQ 171 (CCPA 1979)).

Applicants respectfully request reconsideration of the claims rejected over the combination of the teachings of Bang, the Related Art, and den Boer because there is no motivation to combine these references, particularly because the problems to be solved by Bang, the Related Art, and den Boer are not analogous. Accordingly, Applicants respectfully submit that claims 3 and 9 are allowable over the cited references.

In the Office Action, the Examiner rejects claims 15 and 17 under 35 U.S.C. §103(a) as being unpatentable over Bang in view of the Related Art, and den Boer. The rejection of claims 15 and 17 is respectfully traversed and reconsideration is requested. Applicants respectfully assert that the Office Action fails to provide a motivation to combine the cited references to establish *prima facie* obviousness. MPEP 2142. Applicants further assert that the cited references are not pertinent to the present invention.

The Manual of Patent Examining Procedure ("MPEP"), citing In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) states:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP 2143.

Moreover, although a device may be capable or being modified, there must be some

suggestion or motivation in the references. MPEP 2143. It must first be shown that there is some suggestion or motivation to combine the references cited, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the references teachings. MPEP 2143.

The Office Action suggests that the motivation to combine the teachings of Bang, the Related Art, and den Boer would have been to use the sensor TFT and the storage capacitor of the Related Art in the method of Bang in order to detect an optical image using well understood thin film transistors and capacitors as stated by the Related Art, and to use the non-transparent chrome layer of den Boer as the metal material in the dual layered electrode of the Related Art and Bang in order to use a known metal whose processing is well understood in the art as taught by den Boer.

Applicants respectfully submit that this recitation of motivation fails to explain what specific scientific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination of the teachings of Bang, the Related Art, and den Boer.

The problem sought to be solved by Bang is to provide for the "repairing [of] a point defect such as an electrical short between a pixel and a thin film transistor, or between a bus line and a pixel, while fabricating the device." See col. 1, lines 12-15.

The problem sought to be solved by den Boer is to provide a "TFT having a channel length capable of being less than the feature size of the lithography used so as to reduce gate-source capacitance which in turn reduces pixel flickering and image retention thereby improving the viewing characteristics of the LCD." Col. 1, lines 10-14.

The problem sought to be solved by the Related Art is to provide “an optical detecting sensor [which] detects an image of an object by producing a detecting current in response to light reflected from the object (page 2, lines 10-11),” wherein the sensor includes “a window which transmits light from the light source to the object, a sensor TFT which generates an optical current in accordance to the amount of the light reflected from the object, a storage capacitor which stores charges of the optical current generated in the sensor TFT, and a switching TFT which controls the release of charges of the storage capacitor to an external circuit.” See page 2, lines 12-16.

Therefore, because the problems addressed by Bang, the Related Art, and den Boer are different, Applicants assert that one of ordinary skill would not have reasonably consulted the cited references and applied their teachings in seeking a solution to the problem that the present invention attempts to solve. See, In re GPAC, 57 F.3d 1573, 1578, 35 USPQ2d 1116 (Fed. Cir. 1995)(citing In re Wood, 599 F. 2d 1032, 1036, 202 USPQ 171 (CCPA 1979)).

Applicants respectfully request reconsideration of the claims rejected over the combination of the teachings of Bang, the Related Art, and den Boer because there is no motivation to combine these references, particularly because the problems to be solved by Bang, the Related Art, and den Boer are not analogous. Accordingly, Applicants respectfully submit that claims 15 and 17 are allowable over the cited references.

In the Office Action, the Examiner rejects claim 18 under 35 U.S.C. §103(a) as being unpatentable over Bang in view of den Boer. The rejection of claims 18 is respectfully traversed and reconsideration is requested. Applicants respectfully assert that the Office Action fails to provide a motivation to combine the cited references to establish *prima facie* obviousness.

MPEP 2142. Applicants further assert that the cited references are not pertinent to the present invention.

The Manual of Patent Examining Procedure (“MPEP”), citing In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) states:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP 2143.

Moreover, although a device may be capable or being modified, there must be some suggestion or motivation in the references. MPEP 2143. It must first be shown that there is some suggestion or motivation to combine the references cited, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine the references teachings. MPEP 2143.

The Office Action suggests that the motivation to combine the teachings of Bang and den Boer would have been to use non-transparent metal layer of den Boer as the metal material in the dual layered electrodes of Bang in order to use a known metal whose processing is well understood in the art as taught by den Boer.

Applicants respectfully submit that this recitation of motivation fails to explain what specific scientific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination of the teachings of Bang and den Boer.

The problem sought to be solved by Bang is to provide for the “repairing [of] a point defect such as an electrical short between a pixel and a thin film transistor, or between a bus line and a pixel, while fabricating the device.” See col. 1, lines 12-15.

The problem sought to be solved by den Boer is to “reduce gate-source capacitance which in turn reduces pixel flickering and image retention thereby improving the viewing characteristics of the LCD.” See col. 1, lines 12-14.

Therefore, because the problems addressed by Bang and den Boer are different, Applicants assert that one of ordinary skill would not have reasonably consulted the cited references and applied their teachings in seeking a solution to the problem that the present invention attempts to solve. See, In re GPAC, 57 F.3d 1573, 1578, 35 USPQ2d 1116 (Fed. Cir. 1995)(citing In re Wood, 599 F. 2d 1032, 1036, 202 USPQ 171 (CCPA 1979)).

Applicants respectfully request reconsideration of the claims rejected over the combination of Bang and den Boer because there is no motivation to combine these references, particularly because the problems to be solved by Bang and den Boer are not analogous. Accordingly, Applicants respectfully submit that claim 18 is allowable over the cited references.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

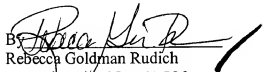
Applicants have offered on several occasions, including after filing of the present RCE, to conduct a personal interview with Examiner to further discuss the distinguishing features of the present application over the cited art. However, the Examiner has declined the offers. Applicants again suggest to the Examiner that the technical issues with respect to this application may be resolved with a brief personal interview.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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